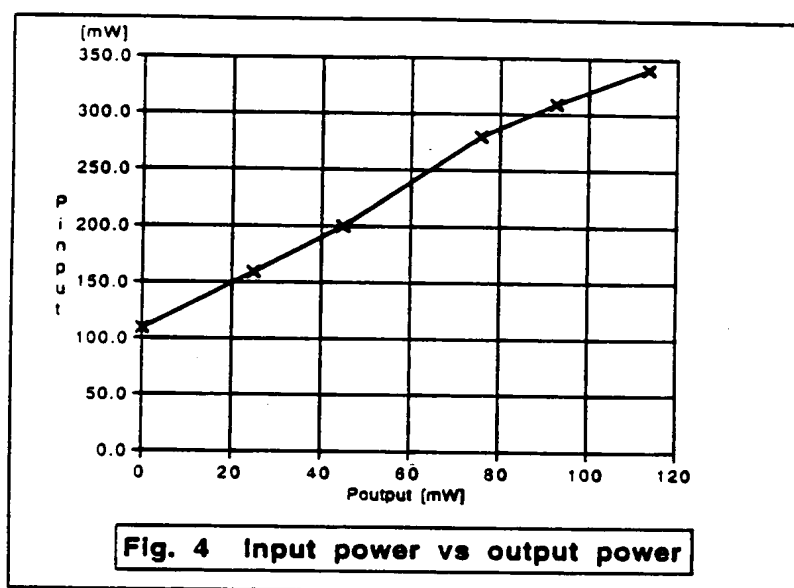
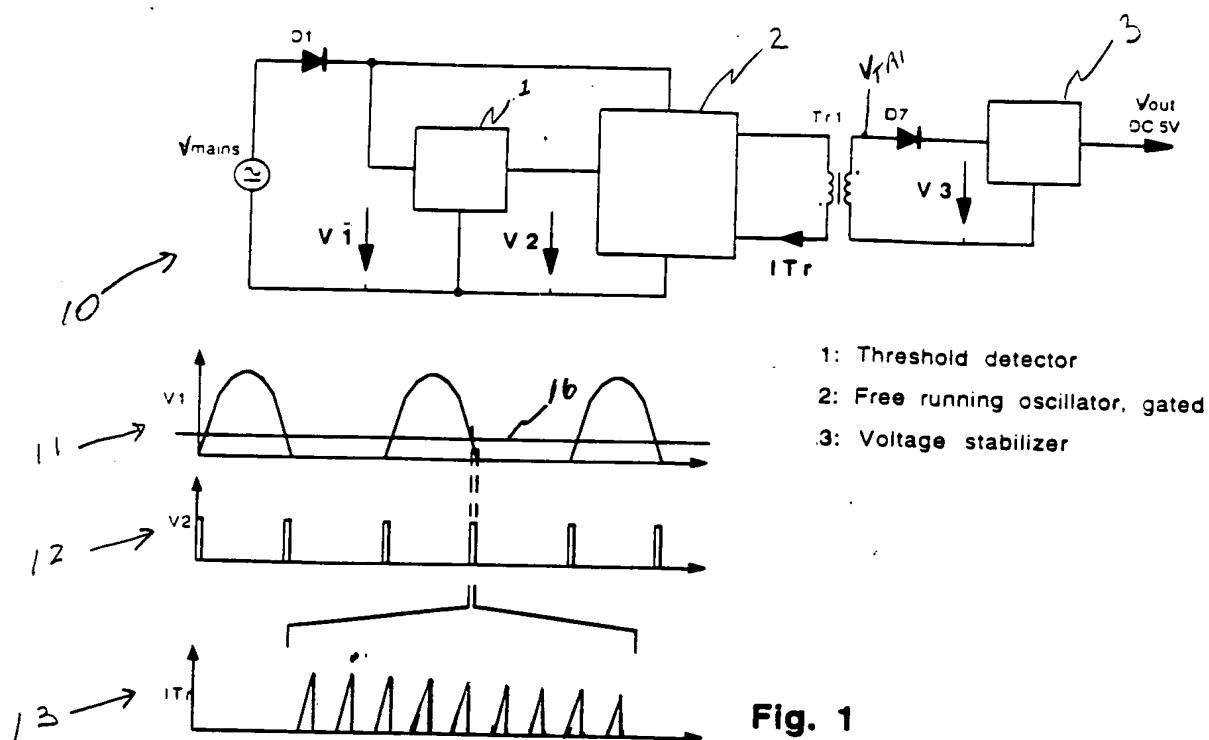


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The schematic diagram illustrates a 300W audio amplifier, divided into three functional blocks:

- Block 1:** This section handles the input signal. It features a transformer  $T_1$  with a primary connected to the mains ( $V_{mains}$ ) and a secondary providing a 0V reference and a 12V supply. A network of resistors ( $R_1, R_2, R_3, R_4, R_5, R_6, R_7, R_{11}, R_{12}, R_{13}$ ) and capacitors ( $C_1, C_2, C_3, C_4$ ) shapes the input signal  $V_1$ . A diode  $D_1$  and a Zener diode  $Z_{12}$  are used for signal conditioning. A current source, controlled by a microcontroller (outputting 2mA/0mA), is connected to the input stage.
- Block 2:** This block contains the pre-amplifier and driver stages. The input signal  $V_1$  is amplified by a stage involving  $T_2$  and  $T_3$ . The output of this stage drives a push-pull output stage consisting of transistors  $Q_1$  and  $Q_2$ . Diodes  $D_3, D_4, D_5$  and resistors  $R_1, R_2, R_3, R_4, R_5, R_6, R_7$  are used for biasing and signal coupling. The output of Block 2 is connected to Block 3 via terminals  $n_1, n_2, n_3$ .
- Block 3:** This block is the power supply section. It starts with a transformer  $T_1$  (labeled D11-D14) connected to the mains. The secondary provides a 0V reference and a 12V supply. A network of resistors ( $R_1, R_2, R_3, R_4, R_5, R_6, R_7, R_{11}, R_{12}, R_{13}$ ) and capacitors ( $C_1, C_2, C_3, C_4$ ) shapes the input signal  $V_1$ . A diode  $D_1$  and a Zener diode  $Z_{12}$  are used for signal conditioning. A current source, controlled by a microcontroller (outputting 2mA/0mA), is connected to the input stage.

**Fig. 2**

[illegible]

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